Notes for Water Watchers

Kansas Department of Health and Environment

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Minimum Pollution Control Practices for Fuel Storage Tanks

What are fuel storage tanks and why are they a concern?

Fuel storage tanks are used to store heating, motor, or equipment fuels. They can be either above or below ground and for commercial or private use. Fuel storage tanks consist of two types: underground storage tanks (USTs) and aboveground storage tanks (ASTs). These tanks are made in different sizes from different materials, and they may have different piping and valves. Fuel storage tanks are used in many rural and urban areas to aid owners and operators in their operations or activities. There is a myth that regulated tanks (those of a certain size and/or use that have to meet certain requirements by law) are the only fuel storage tanks to be concerned about. Although most problems are linked to commercial gas stations or large tanks, and the Kansas Department of Health and Environment's Bureau of Environmental Remediation (KDHE-BER) administers the program overseeing their use, all fuel tanks, regardless of size and use, should be a concern because of some similar and different reasons.

- **Both above and below ground tanks** have the potential to leak either from the tank or the piping.
- **Substances they may leak is hazardous** or is composed of hazardous substances including volatile organic compounds (VOCs). Some VOCs are suspected to cause cancer. These substances do not naturally disappear and are not removed easily.
- **Contaminated water sources** are not usable by man and livestock.
- **Cleanup** is costly and time consuming for both.
- **May be difficult for successful real estate transactions** if there is a tank or if the tank cannot be located.
- **Liability of the owner** if a leak occurs could cause major financial stress and inconvenience.
- **One gallon of gas can contaminate** a million gallons of water (according to its use and the point to where it cannot be used).

USTs are usually more of a concern:

- **Because of the inability** to check or notice leaks, therefore allowing for large quantities and extended leak time.
- **Expensive to clean up contaminated soil and water** having been exposed to leaking fuel.
- **Tank repair**, removal, and/or replacement is expensive.

ASTs are also a concern, but for other reasons:

- **Not only are they an environmental threat**, they can also be a fire hazard if improperly installed, operated, or located.
- **They can be backed into or tipped over**, increasing the potential for spills or damage.
- **If not protected by a heat shield,** condensation can reduce the quality of fuel.
- **If not protected by a heat shield,** condensation can reduce the quality of fuel.
- **They can be checked for leaks** regularly because of their visibility.
- **Since they are more visible than USTs**, their measurements and other features are easier to obtain.

What about tanks that the regulations consider exempt?
USTs considered exempt from regulations are:

- **Farm and residential tanks** of 1,000 gallons or less.
- **Single family residence** heating oil storage tanks.
- **Tanks** above the basement floor or underground area, making the tank visually inspected on all sides.
- **Flow-through** process tanks.
- **Septic tanks.**
- **Tanks 10 gallons** or less.

ASTs considered regulation exempt include:

- **Any tank associated** with oil production, pipelines, or refining.
- **Commercial tanks** less than 660 gallons.
- **Noncommercial fuel tanks** or those used for farm and ranch purposes, which are less than 1,100 gallons.
- **Any tank used to store heating oil** for a single family residence.

As previously mentioned, there are regulations for specific types, uses, and sizes of tanks. Regulations provide owner registering (tank type, owner, site, and location information) tank with KDHE-BER. This registration assures certain pollution control practices to prevent environmental contamination associated with tank installation, operation or use, maintenance and replacement, and removal or repair. It also tracks their performance and allows for quicker response and cleanup if a leak occurs.

Owners may not be aware of a tank's existence, information, or assistance available to them to address questions. While not all of the practices associated with regulated tanks are feasible or applicable to **exempt tanks**, some of the same concepts and practices listed below can be used.

- Register these tanks **voluntarily** to receive UST Release Trust Fund coverage up to $1,000,000 in case of leakage. This fund is designed to reimburse owners who report and pursue proper investigation of cleanup and closure procedures. Registration is free, and a form can be obtained from KDHE or the district offices. Registering voluntarily will also make sales transactions less difficult, reduce the need for across the board regulation for all tanks, protect future liability, and ultimately, protect the environment.

- **Know the specifics of the tank including**: age, size, soil type in location, container and piping construction, and distance from groundwater.
- **Monitoring for leaks** by comparing amount pumped in vs. the amount taken out is suggested.
- **Obtain a qualified person or KDHE** to oversee exempt tank removal to help limit environmental liability during property sales.
- **If a storage tank is needed,** properly remove the exempt UST and replace it with an AST, with KDHE assistance. Add a heat shield to reduce condensation and a visible flag to reduce vehicle-related accidents.
- **Spill prevention and response** plans are recommended.

For more information concerning USTs or ASTs, regulated and exempt, contact KDHE-BER, UST Section at (785) 296-1678 or the AST Section at (785) 296-6242.